

SUPPORT MOBILE DEVICE IN ASYMMETRIC LINK ENVIRONMENT

ABSTRACT OF THE DISCLOSURE

5 Methods and apparatus for registering a mobile device such as a mobile node or
mobile router with a Home Agent in an asymmetric link environment. A Foreign Agent
associates each of one or more interfaces of the Foreign Agent with a different care-of
address. An agent advertisement including the care-of address for the one or more
10 interfaces of the Foreign Agent is then sent via one or more uplinks. A registration request
is received via a downlink router. The registration request identifies a care-of address
associated with one of the one or more interfaces of the Foreign Agent. One of the
interfaces identified by the care-of address is ascertained, thereby identifying the interface
to which the mobile device has roamed. The registration request is forwarded to the Home
Agent. A registration reply is received from the Home Agent. The registration reply is
15 then forwarded to the mobile device via the ascertained interface.